

Application No. 09/688,213

Docket No. 00-VE15.17 RCE 1

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

**LISTING OF CLAIMS:**

1. (Previously Presented) A system of assessing and reporting operations in an access data network, said system providing services to customer premises equipment of an identified one customer through the access data network, said system comprising:

a communication access node coupled to a wide area internetwork;

a plurality of digital subscriber line transceivers, coupled to network ends of subscriber lines, for data communication with transceivers coupled to respective customer premises ends of respective subscriber lines;

an access switch coupled for data communications with the digital subscriber line transceivers, for receiving data from customer premises equipment via respective ones of the digital subscriber line transceivers and for supplying data intended for transmission to line transceivers;

a high-speed data link between said access switch and said communication access node;

a local services network coupled locally to said access switch, wherein said access switch segregates upstream traffic from the respective customer premises equipment between said local services network and said high-speed data link to said communication access node, and said access switch aggregates downstream traffic from said local services network and said high speed data link from said communication access node for transmission to the respective customer premises equipment;

a server coupled to said local services network;

a user terminal adapted to conduct an interactive session with said server to initiate assessing and reporting operations;

wherein said user terminal and said server are configured automatically to determine at least one state of the access data network in relation to a provision of the service to said customer premises equipment of the identified one customer through the access data network; and to communicate information regarding said at least one state of the access data network to said user terminal for presentation to a user.

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2. (Previously Presented) A system as in claim 1, wherein:

the one customer has a logical circuit provisioned through the access data network, the logical circuit extending from the customer premises equipment of the one customer to the communication access node via the access switch and the high-speed data link, and the logical circuit comprises a layer-2 protocol logical communication circuit provisioned through the access switch and the high-speed data link.

3. (Previously Presented) A system as in claim 2, wherein the layer-2 protocol logical communication circuit comprises an Asynchronous Transfer Mode (ATM) virtual circuit.

4. (Previously Presented) A system as in claim 1, further comprising:

continuing the interactive session between the user terminal and the server, to initiate a further assessment;

in response to initiation of the further assessment, automatically determining at least one other state of the access data network in relation to provision of the service to customer premises equipment of the identified one customer through the access data network; and

communicating information regarding the at least one other state of the access data network to the user terminal, for presentation to the user.

5. (Previously Presented) A system as in claim 1, wherein the user terminal comprises customer premises equipment of the identified one customer, and the interactive session is conducted via the access data network between the server and the customer premises.

6. (Previously Presented) A system as in claim 1, wherein the user terminal comprises a workstation for technical personnel concerned with operations of the access data network.

7. (Previously Presented) A system as in claim 1, wherein the step of automatically determining at least one state of the access data network comprises conducting a throughput test between a server coupled to the local services network and customer premises equipment of the one identified customer.

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8. (Previously Presented) A system as in claim 1, wherein the step of automatically determining at least one state of the access data network comprises conducting a throughput test between another server and customer premises equipment of the one identified customer, wherein the other server is coupled to either the communication access node, a point of presence of a wide area service provider or the wide area internetwork.

9. (Previously Presented) A system as in claim 1, wherein the step of automatically determining at least one state of the access data network comprises obtaining data relating to current performance of at least one element of the access data network.

10-16. (Cancelled)

17. (Currently Amended) A system ~~as in claim 16, wherein the access data network comprises comprising:~~

an access data network, for providing access services to a wide area domain and a logically separate local services domain, the access data network separating the two domains at least in part based on distinctions in types of protocols at a level above a protocol level used to define basic connectivity through the access data network to the wide area domain;

a web server, coupled to the local services domain, for interactive communication with a customer subscribing to wide area domain access service, through the access data network;

means responsive to customer selections via the interactive communication with the web server, for automatically isolating selected points of the access data network and determining a current status of at least one element associated with each selected point effecting the wide area domain access service provided to the customer, and for providing results of each status determination to the web server;

a communication access node coupled to a wide area internetwork that forms the wide area domain;

a plurality of digital subscriber line transceivers coupled to network ends of subscriber lines, for data communication with transceivers coupled to respective customer premises ends of respective subscriber lines;

an access switch coupled for data communications with the digital subscriber line transceivers, for receiving data from customer premises equipment via respective ones of the

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digital subscriber line transceivers and for supplying data intended for transmission to predetermined customer premises equipment to the respective ones of the digital subscriber line transceivers;

a high-speed data link between the access switch and the communication access node;

a local services network forming the local services domain, coupled locally to the access switch,

wherein the access switch segregates upstream traffic from the respective customer premises equipment between the local services network and the high-speed data link to the communication access node, and the access switch aggregates downstream traffic from the local services network and the high-speed data link from the communication access node for transmission to the respective customer premises equipment.

18-21. (Cancelled)

22. (Currently Amended) A method ~~for automated service assessment in an access data communication network~~, comprising the steps of:

interacting directly with a remote device having a web-based software application user through a web server in an the access data communication network to receive a selection of a service assessment via the web-based software application from ~~identify~~ a customer subscribing to wide area access service, ~~requiring service assessment~~;

initiating the service assessment in response to the selection;

from a local services domain, selectively isolating and determining current capabilities of test points in the access data communication network to provide service for the customer; and

automatically reporting the determined current capabilities of the test points through the access data communication network to the user.

23. (Original) A method as in claim 22, wherein the user is the customer.

24. (Original) A method as in claim 22, wherein the determined current capabilities relate to an access service for the customer to a wide area domain.

25. (Previously Presented) A system of assessing operations of an access data network, said system comprising:

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a communication access node coupled to a wide area internetwork;  
a plurality of digital subscriber line transceivers, coupled to network ends of subscriber lines, for data communication with transceivers coupled to respective customer premises ends of respective subscriber lines;

an access switch coupled for data communications with the digital subscriber line transceivers, for receiving data from customer premises equipment via respective ones of the digital subscriber line transceivers and for supplying data intended for transmission to line transceivers;

a high-speed data link between said access switch and said communication access node;

a local services network coupled locally to said access switch, wherein said access switch segregates upstream traffic from the respective customer premises equipment between said local services network and said high-speed data link to said communication access node, and said access switch aggregates downstream traffic from said local services network and said high speed data link from said communication access node for transmission to the respective customer premises equipment;

a first server coupled for communication with said communication access node;

a user terminal of one customer is adapted to conduct a communications test with said first server, to assess a layer 2 connectivity for the one customer through the access data network; and

a second server, coupled to said local services network, is adapted to conduct a communications test with said first server, to assess a layer 2 connectivity from said access switch to said communication access node.

26. (Previously Presented) A system as in claim 25, wherein at least one of the communications tests comprises a throughput test communication.

27. (Previously Presented) A system as in claim 25, wherein:

the one customer has a logical circuit provisioned through the access data network, the logical circuit extending from the customer premises equipment of the one customer to the communication access node via the access switch and the high-speed data link, and

the logical circuit comprises a layer-2 protocol logical communication circuit provisioned through the access switch and the high-speed data link.

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28. (Previously Presented) A system as in claim 26, wherein the layer-2 protocol logical communication circuit comprises an Asynchronous Transfer Mode (ATM) virtual circuit

29. (New) A system comprising:

a test server coupled to an access data network, the access data network coupled to a wide area network and a subscriber premises;

a web server coupled to the access data network and accessible via a computing device connected to the access data network;

a test application at least partially loaded in the test server and accessible via the access data network, the test application including a number of tests, at least one of the number of tests including an service-specific test;

wherein the web server is configured to provide a first web page to the computing device, the first web page adapted to allow a selection of at least one of the number of tests, receive an indication of the selected test, provide communication with the test application to cause the test application to execute the selected test, and provide a second web page to the computing device containing results of the selected test;

wherein the service-specific test is one of a video throughput test and a Voice over IP throughput test, and wherein the service-specific test includes testing throughput against a service level.

30. (New) The system of claim 29, wherein the access data network includes a number of network elements, and the selected test accesses at least one of the number of network elements to determine a status of the at least one network elements.

31. (New) The system of claim 29, wherein the test application is configured to access a network element in the wide area network to perform the selected test.

32. (New) A method comprising:

transmitting a first web page to a remote device, the first web page including a facility to select a service-specific test applicable to a subscriber to a service associated with the service-specific test;

receiving a selection indicating a request to perform the service-specific test;

executing the service-specific test, including

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accessing a number of network elements between the subscriber and a network element associated with the service,

obtaining at least one measurement of throughput between the subscriber and the network element associated with the service;

comparing the at least one measurement to service levels applicable to the service;

generating results of the service-specific test based on the comparison;

transmitting a second web page to the remote device, the second web page including the results of the service-specific test;

wherein the service-specific test is one of a video throughput test and a Voice over IP test.

33. (New) The method of claim 32, wherein the number of network elements include network elements of an access data network.

34. (New) The method of claim 32, wherein the number of network elements include an access device located proximate to the remote device.

35. (New) The method of claim 34, wherein the access device is a DSL modem.

36. (New) The method of claim 32, wherein accessing the number of network elements includes performing at least one test of a number of tests, the number of tests including

a connectivity test using ICMP ping messages,

a connectivity test using an application layer interface to a Layer 2 resource,

a packet rate throughput test using a TCP-based dampened oscillation

algorithm,

an application-level throughput test,

a quality of service test using a stream of packetized voice traffic, and

a query of network elements that support queries.

37. (New) The method of claim 32, wherein executing the service-specific test is performed by a test application executing in a test server, the test server part of an access data network that includes at least one of the number of network elements.

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38. (New) A computer-readable medium storing instructions executable by a processor and configured to cause the processor to perform the method of claim 32 when executed by the processor.

39. (New) A computer-readable medium storing instructions executable by a processor and configured to cause the processor to perform the method of claim 22 when executed by the processor.